

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-014298**Date Inspected:** 18-May-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Xu Tao**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG AND TOWER COMPONENT**Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance (QA) Inspector, Subhasis Bera was present during the times noted above for observations relative to the work being performed.

In process Inspection

Bay #14

This QA Inspector observed the following work in progress:

FCAW in the 2F position for the OBG Segment 12AE, weld No. SEG3001B-008. The welder is identified as #048038. ZPMC QC is identified as Mr. Wang Xu. The welding variables recorded by QC appear to comply with WPS-B-T-2132.

FCAW in the 2F position for the OBG Segment 12CW, weld No. SEG3006G-009. The welder is identified as #062438. ZPMC QC is identified as Mr. Li Ming Yang. The welding variables recorded by QC appear to comply with WPS-B-T-2132.

FCAW in the 3G position for the OBG Segment 12CW, weld No. SEG3006C-004. The welder is identified as #067847. ZPMC QC is identified as Mr. Li Ming Yang. The welding variables recorded by QC appear to comply with WPS-B-T-2233-B-U2-F.

Ultrasonic Testing (UT)

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This QA Inspector performed Ultrasonic testing (UT) 10% of the area previously tested and accepted by ZPMC Quality control personnel. This QA inspector generated a (UT) report for this date. The members are identified as segment 10AW.

The weld designations reviewed are as follows:

SEG059A-005,006,017,018,037,038

SSD10A-PP86-140,144,148

SSD21-PP85.5-129,131

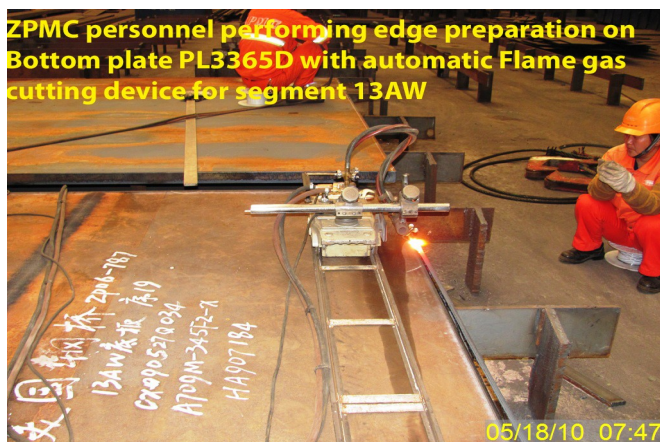
EP131A-001-027,025

During the Quality Assurance Ultrasonic Testing (UT) review of welds located on Orthotropic Box Girder (OBG) Segment 10AW , this Quality Assurance Inspector (QA) discovered the following issues that two (2) longitudinal linear indication measuring approximately 35mm and 45mm in length. The indications db rating is +4 and +6. Material thickness is 18mm. The depth of the indications are approximately 10.5 mm and 13mm. The welds are identified as SSD10A-PP86-140 and SSD10A-PP86-148. The welds are designated as Seismic Performance Critical Members (SPCM). The indication is clearly marked on or near the weld. The welds SSD10A-PP86-140 and SSD10A-PP86-148 are Complete Joint Penetration (CJP) "T" joint .According to the approved drawing the joints are fillet weld joints but due to root gap excess than 5mm, the ZPMC change the joint form fillet to CJP without any engineering approval . The Notice of Witness Inspection (NWIT) No. is 005762. The indications located the area previously not tested by ZPMC Quality Control (QC) personnel but as per the contract documents, ZPMC's QC personnel are required to perform 100% UT inspection of this weld. The QA inspector did not generate any incident report for this date.

Visual Inspection after Blast at West Tower Lift -1

This Quality Assurance (QA) Inspector performed random visual inspection of West Tower lift -1 all skin plate (A to E) after grit blasting. Areas that marked for repair were recorded for future repair. Areas requiring additional grinding were marked by QA and repaired by ZPMC personnel.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.



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### Summary of Conversations:

No relevant conversations

### Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang 150-0042-2372, who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Bera,Subhasis	Quality Assurance Inspector
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<b>Reviewed By:</b>	Patterson,Rodney	QA Reviewer
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